

REMARKS

This paper is filed in response to the final Office Action mailed on August 8, 2011. Claim 1 is currently amended. No claims are currently cancelled. Claims 1-5, 7-19, 23, 24, 26, and 28-32 are currently pending.

In light of the following remarks, the applicant requests withdrawal of the pending rejections and advancement of this application to allowance.

Claim Amendment

Claim 1 was amended to clarify that there is no user intervention between the downloading of first and second patient-specific parameters, although there could be downloading of other types of parameters and data between the first and second patient-specific parameters. This amendment is supported throughout the pending patent application, including at least the text from page 5, lines 3-7; page 25, lines 19-21; page 26, lines 8-21; and page 27, lines 15-19.

Rejections under 35 U.S.C. § 103

Claims 1-3, 7-19, 23, 24, and 32 stand rejected as being obvious over Peterson (US 5,788,669) in view of Eggers (US 5,713,856) and in view of Official Notice and in even further view of JP7502678. Claims 4 and 5 stand rejected as being obvious over Peterson in view of Eggers in view of Official Notice in view of JP7502678 as applied to claim 3 above, and in further view of Medisource. Claims 26 and 28-31 stand rejected as being obvious over Peterson in view of Eggers in view of Blomquist (US 5,658,620) and in even further view of JP7502678. The applicant respectfully traverses these rejections and does not concede any characterizations of the pending application or cited references provided in the Office Action.

As discussed in more detail below, none of the cited references disclose, teach, or suggest batch-downloading patient-specific parameters into a pump as recited in the pending claims. Nor do the cited references disclose, teach, or suggest “batch-downloading the plurality of data items into memory within the pump, the batch-down loading comprising downloading at least first and second patient-specific parameters without intervention from a user between the downloading of the first and second patient-specific parameters” as further recited in claim 1. In fact some of the cited references teach away from these elements. Therefore, no combination of the cited references can result in the claimed combination of elements.

a. Peterson

Peterson (US 5,799,669), discloses a system that stores a library of application programs 22 for operating a medical pump 10. The library of programs is stored on a desk-top computer 26. A user can select one of the programs to download from the desk-top computer to the medical pump. It also discloses the computer 26 can store a trace table, which is a database for tracking operation of the pump. The trace table can store personal and medical information about the patient. Col. 4, ll. 36-53. Although its claims may not be so limited, Peterson discloses downloading only the application programs to the pump. It does not disclose, teach or suggest downloading patient-specific data items from a computer to the pump. Nor does it disclose, teach, or suggest batch-downloading patient specific data items.

b. Eggers

Eggers (US 5,713,856) is directed to a stand-alone pump system in which a central interface unit 100 is used to connect to pump units 150. It discloses downloading drug libraries and profiles to a patient care system through the use of PCMCIA memory cards. Col. 10, l. 38-col. 11, l. 45. However, it is silent about downloading individualized, patient-specific parameters for controlling operation of a medical pump. In fact, when Eggers does disclose entering patient-specific parameters such as the delivery rate and volume to be infused, it teaches the parameters are entered directly into the pump using a hardkeys (e.g., 156), softkeys (e.g., 106), and display 102. Col. 14, ll. 17-38. Therefore, Eggers actually teaches away from batch downloading patient-specific parameters and thus teaches away from the combination of elements recited in the pending claims.

The Office Action cites col. 10:62 to col. 11:7 against the pending claims. However, this disclosure does not refer to patient-specific data items. Rather it discloses downloading drug libraries to the patient care system. The programs for the drug libraries contain information about the drugs such as the drug name, concentration, dosage units, and dose limits. Eggers then teaches this information is used to perform drug calculations.

Eggers explicitly requires that patient-related drug calculations be performed on the pump and that patient-specific variables required to perform the calculation are entered directly into the pump through the softkeys 106. The variables required to be entered directly into the pump through the softkeys include the patient's weight, volume to be infused, and delivery rate

or dose (i.e., patient specific parameters). Col. 16:16-32. Eggers therefore describes a system in which a user can create and download to a pump customized libraries of these general information items, and later use the programs by entering individual patient-specific parameters directly into the pump through softkeys on the pump itself.

Eggers does not disclose, teach, or suggest batch downloading patient-specific parameters.

c. Official Notice

The examiner took official notice that identifiers such as data keys are used to identify sets of data stored in a database. The Official Notice does not recognize patient-specific parameters or medical infusion pumps.

d. JP7502678 (US 5,681,285 to Ford)

JP7502678 claims priority to Ford (US 5,681,285), which is the corresponding U.S. patent. Ford (JP7502678; US 5,681,285) is directed to a system for creating a customized drug library. It discloses downloading drug libraries to a medical pump. It also discloses the drug library can include global parameters such as dosage limits. Ford (JP7502678; US 5,681,285) fails to disclose downloading individualized, patient-specific parameters for controlling operation of a medical pump. With reference to Figure 19c (e.g., operation 370 and 372), it teaches that patient specific parameters are entered directly and individually into the pump. For example, col. 23, line 41-col. 24, line 43, explains that the user enters individual values such as dose, delivery rate, and bolus amounts and then must confirm each data entry. This disclosure teaches away from the batch downloading patient-specific parameters and thus teaches away from the combination of elements recited in the pending claims. Ford (JP7502678; US 5,681,285) does not teach downloading patient-specific data items, and certainly does not teach, disclose, nor suggest batch downloading such data items.

e. Blomquist

Blomquist (US 5,659,250) discloses downloading application programs into flash memory onboard a pump. The Office Action cites col. 11, l. 64-col. 12, l. 10 in support of the rejection. It reads:

Keyboard 24 can intentionally be provided with a limited number of keys to keep

operation of pump 12 through keyboard 24 simple. However, some applications and even some patient specific settings may involve numerous inputs such that the use of a standard keyboard, through computer system 30 may be advantageous. Downloading of this information from a computer system 30 is useful since all of the inputs of information can be made through a standard keyboard of computer system 30. The present invention provides the caregiver with the ability to download just applications to flash memory 150, or applications to flash memory 150 and patient specific settings to the other memory locations without entering information through keyboard 24.

Although Blomquist's claims may not be so limited, this passage does not teach batch downloading of patient-specific settings. On the contrary, reading the full context of the entire paragraph, it suggests only that it is easier for a user to enter individual data items via a full-size QWERTY keyboard than the limited keyboard on the pump interface.

The Office Action also cites col. 7, l. 63-col. 8, l. 11, which states patient-specific settings can be input to the pump via keyboard 24 or communication port 26. However, this disclosure merely provides a way to input patient-specific data other than the keyboard. It does not teach or suggest entering batches of patient-specific data.

This interpretation of the cited passage from Blomquist is corroborated when read in context of other teachings in the patent. For example, col. 9, lines 45-53 teach that patient-specific information is stored in RAM on the pump. Col. 9, line 54-col. 10, line 9 then teaches application programs are stored on the computer for downloading to the pump. There is no teaching that patient-specific information is stored on the computer. In another example, Blomquist explicitly teaches, "User prompts are preferably provided for requesting the caregiver to enter the particular settings when entered via computer system 30." Col. 10, ll. 15-17 (emphasis added). The teaching of user prompts for entry of patient specific information teaches that the computer presents a query for each individual patient-specific data item, which teaches away from batch loading of data. The teaching also notes that the patient specific information is entered into the pump via the computer system, not into a database in the computer for later downloading to the pump. Therefore, Blomquist fails to disclose, teach, or suggest batch-downloading individualized, patient-specific parameters.

Conclusion


Therefore, no combination of the cited references can result in the claimed combination of elements. For at least these reasons, the applicant respectfully submits that the pending claims are nonobvious over the cited references. The applicant requests withdrawal of the pending rejection and advancement of this application to issuance.

The applicant also notes that there may be additional reasons that the claimed invention is patentably distinct from the cited references in addition to those raised in the above remarks. Furthermore, any cancellation or amendment of the claims during prosecution of this patent application is made without prejudice. The applicant reserves the right to raise any arguments in support of patentability and the right to prosecute any cancelled subject matter, whether such subject matter was cancelled through cancellation or amendment of a claim.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact the undersigned attorney at (612) 336-4608.

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